



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,353	09/05/2001	Alfred Heinzl		3131

27187 7590 01/09/2006  
BAKER & DANIELS LLP  
205 W. JEFFERSON BOULEVARD  
SUITE 250  
SOUTH BEND, IN 46601

EXAMINER

SHARMA, RASHMI K

ART UNIT PAPER NUMBER

3651

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/857,353

Applicant(s)

HEINZL ET AL.

Examiner

Rashmi K. Sharma

Art Unit

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/4/01 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “the resilient arms being connected at the bottom side thereof to the outer wall” in claim 4 and “chain links having different accommodation cavities for different components or component stages” in claim 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

Art Unit: 3651

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 10, 14, 15 and 20 are objected to because of the following informalities: it appears that claim 10 line 2 should recite "said chain link", claim 14 line 3 should recite "in the longitudinal direction", claim 15 line 4 should recite "said chain links", claim 20 lines 1-2 should recite said chain link". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is insufficient antecedent basis for this limitation in claim 12 line 1 recites "the pins". There is insufficient antecedent basis for these limitations in the claims.

### ***Claim Rejections - 35 USC 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

Art Unit: 3651

patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 11, 15, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzoe (EP 0660655) in view of Forster et al. (U.S. Patent number 6,273,253).

Matsuzoe discloses a transport system for small components, arranged in series comprising a chain having a plurality of chain links (2) in which the small components are accommodated in an accommodation cavity (1) within each chain link (2), the accommodation cavity (1) having at least 2 walls where one wall is rigid (see Figure 1 or 2, either 13 or any of the L-shaped members within the inner walls where the small component is seated), a central web (center of 13) extending in the direction of insertion of the small components, having arms (both ends of 13) laterally extending therefrom and extending over the full height of the accommodation cavity (1) thereby corresponding to the height of the small components and the outer ends of the arms each having a bead directed towards the inside (see Figure 2). Matsuzoe also discloses the arms having their upper ends being freestanding, the outside rigid wall having a slope (see figure 1), the accommodation cavity (1) having a through opening (17), the chain links (2) are made by plastics injection molding (please read column 1 lines 41-46 and 53-55) and wherein the chain links (2) have different accommodation cavities for different components or component stages (please read column 4 lines 65-67). Matsuzoe also discloses chain links (2) being pivotable about pins (6a) transversely or perpendicularly (please refer to Figure 8) to the direction of insertion of

Art Unit: 3651

the small components in the accommodation cavity (1) and wherein the chain links (2) on one side have two lateral arms (5) with bores (5a) and on an opposite thereof, have two lateral arms (6) with axle-type projections (6a) whereby the axle-type projections latchingly engage the bores upon assembly of the chain links.

Matsuzoe fails to disclose the resilient wall oriented opposite of the rigid wall.

Forster et al. does disclose a resilient wall (28) oriented opposite a rigid wall (26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wall arrangement of Matsuzoe's invention with that of Forster's resilient wall, thereby arranging the resilient wall opposite to the Matsuzoe's rigid wall to provide for a range of different sized components as well as to provide for a more secure holding arrangement of the small components while they are being conveyed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzoe (EP 0660655) in view of Forster et al. (U.S. Patent number 6,273,253) and further in view of McBain et al. (U.S. Patent number 4,060,978).

Art Unit: 3651

Matsuzoe as disclosed above, fails to disclose chain links connected via two pins arranged perpendicularly to each other, thereby creating an arrangement of some pins being parallel to the accommodation cavity and some pins being transverse to the accommodation cavity.

McBain et al. does disclose chain links connected via two pins arranged perpendicularly to each other.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pin arrangement of Matsuzoe's invention with that of McBain's pin arrangement in order to provide for chain links that are much more easily capable of being conveyed along a curved path, either laterally or vertically, with respect to the conveying direction.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzoe (EP 0660655) in view of Forster et al. (U.S. Patent number 6,273,253) and further in view of Hodlewsky (U.S. Patent number 4,586,601).

Art Unit: 3651

Matsuzoe as disclosed above, fails to disclose a chain link side having a central arm with a bore for accommodating a pin, opposing a chain link side having two lateral arms with bores.

Hodlewsky does disclose a chain link side having a central arm with a bore for accommodating a pin, opposing a chain link side having two lateral arms with bores (see Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the opposing side of the chain link of Matsuzoe's invention with the chain link side having a central arm with a bore of Hodlewsky's invention to provide for chain links that are much more easily capable of being conveyed along a curved path, either laterally or vertically, with respect to the conveying direction.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzoe (EP 0660655) in view of Forster et al. (U.S. Patent number 6,273,253) and further in view of Green et al. (U.S. Patent number 5,728,023).

Matsuzoe as disclosed above, fails to disclose metal pins.



Art Unit: 3651

Green et al. does disclose metal pins (please read column 3 lines 23-31 and column 4 line 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the plastic pins of Matsuzoe's invention with that of Green's metal pins in order to provide for much longer and more durable pin wear. It is well known in the art that metal pins last longer under larger amounts of stress than do plastic pins.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzoe (EP 0660655) in view of Forster et al. (U.S. Patent number 6,273,253) and further in view of Hodlewsky (U.S. Patent number 4,586,601) and still further in view of Tschunt et al. (U.S. Patent 3,788,450).

Matsuzoe as disclosed above, fails to show pins projecting laterally beyond the lateral arms.

Tschunt et al. does disclose pins projecting laterally beyond the lateral arms (see Figure 1).

Art Unit: 3651

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pin length of Matsuzoe's invention with that of the pin length of Tschunt's invention in order to provide for a more securely arranged chain link structure by increasing the amount of the bearing surface of the pin, thereby creating more strength and stability in the overall chain link structure.

### ***Claim Rejections - 35 USC 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzoe (EP 0660655) in view of Forster et al. (U.S. Patent number 6,273,253) and further in view of Lapeyre (U.S. Patent number 4,138,011).

Matsuzoe as disclosed above, fails to show formed projections along both longitudinal sides of the chain links, the projections having a width corresponding to the diameter of the pin and being on the same level of the pin.

Lapeyre does disclose formed projections (area around 25 and 25A in Figure 3) along both longitudinal sides of the chain links, the projections having a width corresponding to the diameter of the pin and being on the same level of the pin.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the chain link guides (3 and 4) of Matsuzoe's invention with that of the guides of Lapeyre's invention in order to provide for a variety of conveyor guide arrangements.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzoe (EP 0660655) in view of Forster et al. (U.S. Patent number 6,273,253) and further in view of McBain et al. (U.S. Patent number 4,060,978) and still further in view of Hodlewsky (U.S. Patent number 4,586,601).

Matsuzoe as disclosed above, fails to disclose a chain link side having a central arm with a bore for accommodating a pin, opposing a chain link side having two lateral arms with bores.

Hodlewsky does disclose a chain link side having a central arm with a bore for accommodating a pin, opposing a chain link side having two lateral arms with bores (see Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the opposing side of the chain link of Matsuzoe's

invention with the chain link side having a central arm with a bore of Hodlewsky's invention to provide for chain links that are much more easily capable of being conveyed along a curved path, either laterally or vertically, with respect to the conveying direction.

### ***Response to Arguments***

Applicant's arguments filed 8/30/05 have been fully considered but they are not persuasive.

Examiner's response to arguments from the previously rejected Office Action dated 3/25/05 are as follows:

Applicant argues that Matsuzoe does not render the claims obvious since, as suggested by the Applicant there would be no need to modify Matsuzoe to incorporate a resilient wall opposing the rigid wall, since Matsuzoe already discloses a positive locking arrangement for the small components. However, the Examiner would like to point to Figure 5 in Matsuzoe. As rejected above, the Examiner is relying on either reference numeral 13 or the L-shaped member (as can be seen in Figure 1) to the right of reference numeral 13 as meeting the limitation of a "rigid wall". Matsuzoe as seen in viewing Figure 5, one can see that any resilient wall opposing the rigid wall of Matsuzoe would most certainly urge the small component toward either reference numeral 13 or the L-shaped member in which the small component is seated. Depending on the exact size of the small component, there appears to be sufficient space between the small component and either of these two "rigid walls" for urging movement to take place,

Art Unit: 3651

therefore Matsuzoe does indeed render the above rejected claims obvious. While the Applicant argues that the resilient wall opposing the rigid wall arrangement is not necessary due to the positive locking arrangement of the small components in Matsuzoe's invention, the additional urging of Matsuzoe as modified by Forster et al. in combination with Matsuzoe's positive locking arrangement, allows for a much more secure retaining structure for holding the small components.

Currently, Applicant argues that Matsuzoe does not show a device where the chip is urged against *any* rigid wall. As argued above, the rigid wall the Examiner is relying upon in the Matsuzoe reference is either reference numeral 13 (after having been locked into place) or the L-shaped member (as can be seen in Figure 1) to the right of reference numeral 13 as meeting the limitation of a "rigid wall". Matsuzoe's teaching does indeed allow for a non-rigid wall (movable wall 13) to affect the chip towards a rigid wall (the stationary L-shaped member). These two walls however are not opposed to one another. However, as admitted by the Applicant's Remarks on page 7 lines 11-12 "Matsuzoe doesn't not show a device where the chip is *urged* against *any* rigid wall." and on page 8 lines 18-19 "Firstly with respect to numeral 13, this could not be a rigid wall as this wall moves.", thereby creating a "positive locking" arrangement, as quoted by the Applicant above from the previous set of Arguments. A "positive locking" arrangement being rigid does indeed deem the claimed subject matter as being met in the above rejection utilizing reference numeral 13. Whether or not reference numeral 13 is being used in the above rejection, the L-shaped member would also meet the claimed limitation of "a rigid wall" as claimed in claim 1 and 18, as even if

reference numeral 13 was being construed to be a non-rigid wall, 13 would most certainly be *urging* some sort of force against the rigid L-shaped wall, whether or not it was positioned in opposition to the non-rigid wall. This fact as taught in Matsuzoe's invention shows at the very least a teaching of a wall arrangement having an urging towards another wall, therefore it would deem the claimed subject matter to be obvious in light of the above rejection.

If Matsuzoe's invention were to leave one of the locking pawls (13) unlocked and the other opposing locking pawl locked, the invention would indeed still work and result in Applicant's invention, thereby having a resilient wall opposing a rigid wall.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., retention or frictional engagement of the chip, or the body of the chip versus including and/or excluding the leads) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

“Retention of said articles is effected in the present invention not by a simple friction of elastic members urged towards the articles...” as quoted from the Matsuzoe reference, need not be an issue, as the Applicant is not claiming “retention” or “frictional engagement” within the scope of claims 1 and 18.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

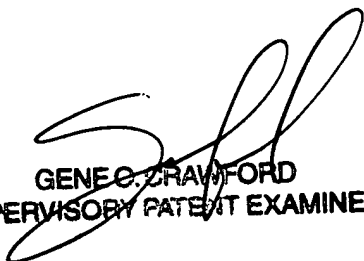
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashmi K. Sharma whose telephone number is 571-272-6918. The examiner can normally be reached on Monday-Thursday.

Art Unit: 3651

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rks

  
GENE C. CRAWFORD  
SUPERVISORY PATENT EXAMINER